

NWS FORM E-5

(11-88)

(PRES. by NWS Instruction 10-924)

U.S. DEPARTMENT OF COMMERCE**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION****NATIONAL WEATHER SERVICE****HYDROLOGIC SERVICE AREA (HSA)****WFO Jackson, Mississippi****MONTHLY REPORT OF HYDROLOGIC CONDITIONS**

REPORT FOR:

MONTH

YEAR

August**2014**

SIGNATURE

TO: Hydrometeorological Information Center, W/OH2
NOAA / National Weather Service
1325 East West Highway, Room 7230
Silver Spring, MD 20910-3283

DATE

09/23/2014

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

X An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

August was a pretty normal month temperature-wise. Greenville and Greenwood had below normal average monthly temperatures and Hattiesburg had above normal temperatures, with all other ASOS (Automated Surface Observing System) locations falling somewhere in between. As to precipitation, the eastern half of the HSA (Hydrologic Service Area) was drier than normal while the western half was particularly wetter than normal. Hattiesburg in particular was more than three inches below normal rainfall and Vicksburg measured more than 2.5 inches of rainfall above normal (making it Vicksburg's 10th wettest August on record). This divide of wet and dry was the pattern of this year's meteorological summer (June through August). Greenwood recorded its 2nd wettest summer and Hattiesburg measured its 3rd driest.

This August started out with a surface low pressure over southern Louisiana. This system triggered afternoon convection across northeastern Louisiana parishes from the 1st through the 3rd. This system eventually dissolved and typical widespread afternoon showers and storms resumed. This normal summertime convection continued each day through the 11th when a cold front approached the Deep South from the northwest. The frontal boundary made it half way through the HSA on the 12th and was able to drop more than three inches of rainfall in isolated locations, generally along and near the Mississippi River. As the boundary completed its trek through the HSA on the 13th, it only triggered small showers in a line generally following along the Natchez Trace Parkway.

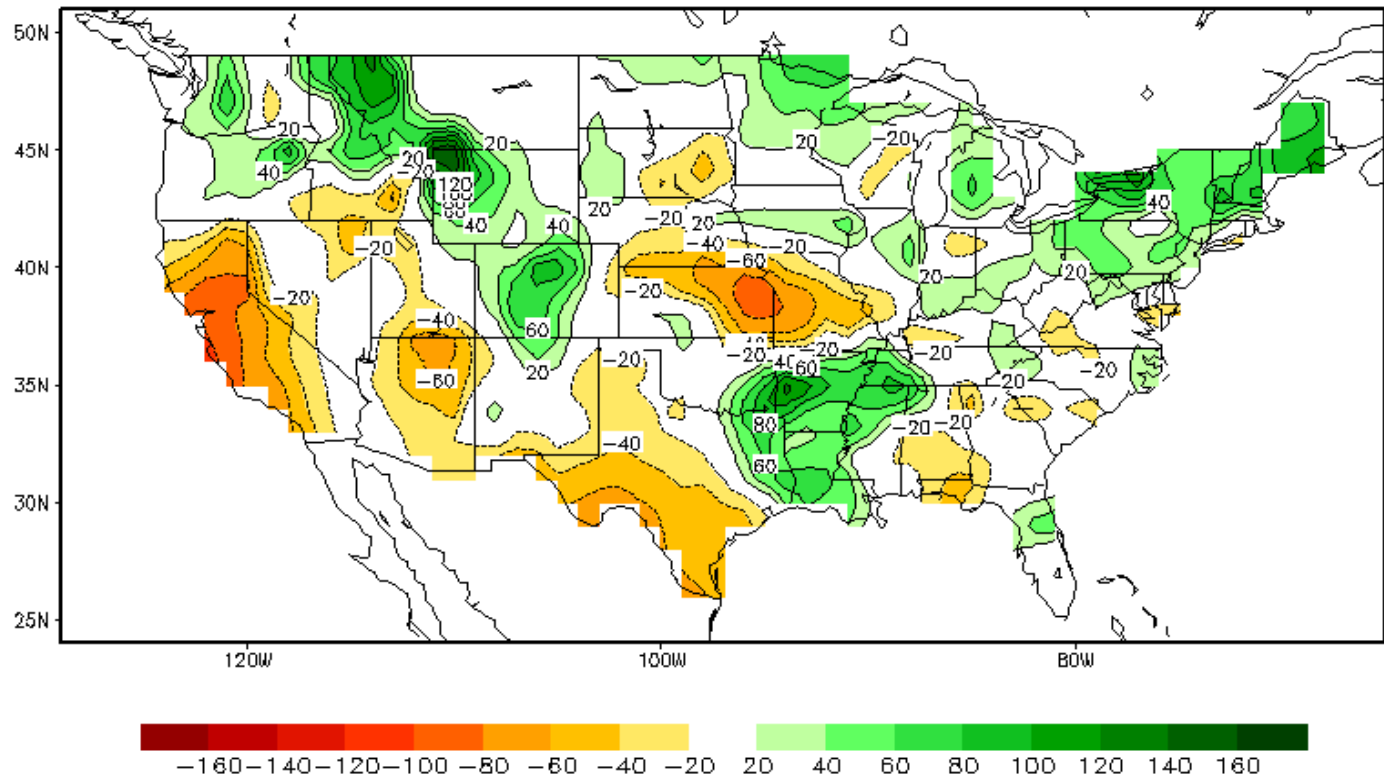
High pressure set in behind the cold front which then allowed the area a couple of warm, quiet days. Mean layer flow slowly rotated southward bringing moisture back to the HSA on the 18th. Light convection brought relief to the southern half of the area on the 18th and isolated relief to the rest of the HSA on the 19th and 20th. Isolated to scattered afternoon showers and storms continued for the next two days, dropping no more than an inch of rainfall in any particular location. The 23rd and 24th were reasonably dry but afternoon showers popped up again on the 25th.

Typical afternoon convection continued through August 30th. An upper shortwave trough passed within the northern vicinity of the HSA on the 31st and triggered a good deal of rainfall on the last day of the month. Northeast Louisiana parishes received upwards of one to three inches while the rest of the HSA received a quarter of an inch to an inch.

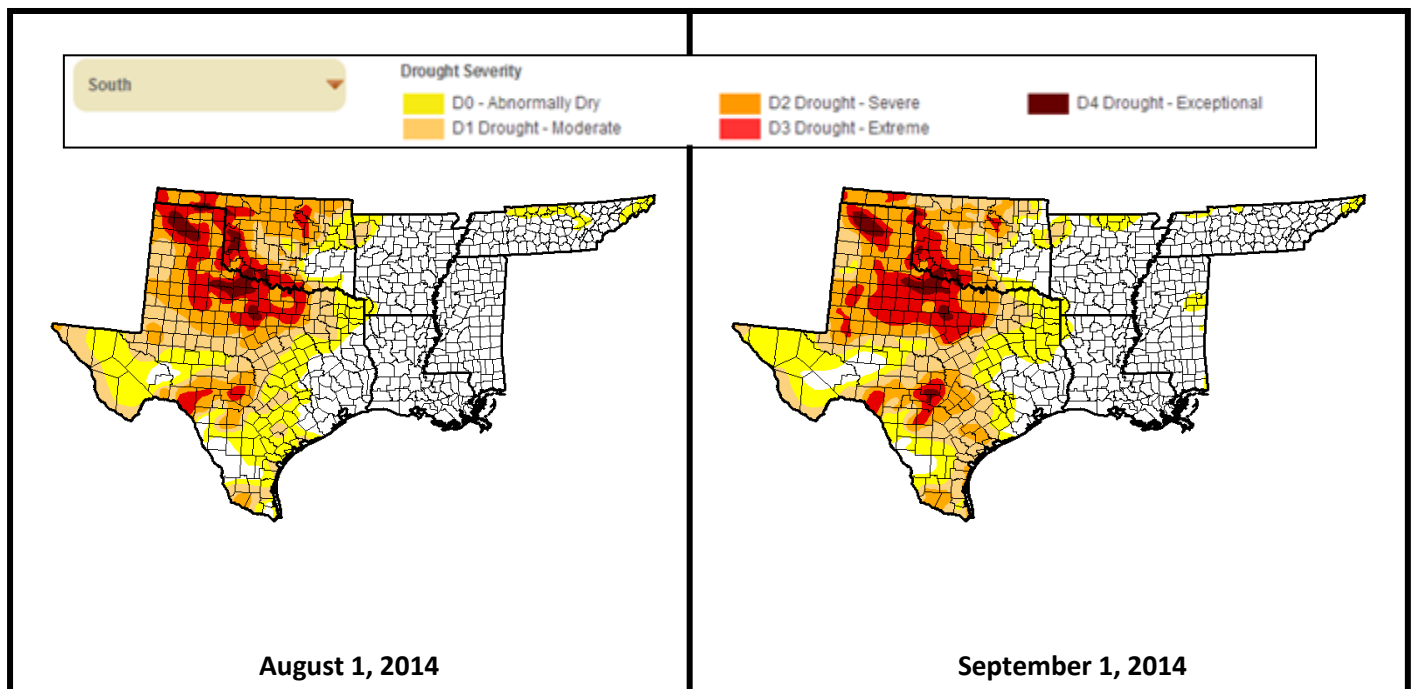
River and Soil Conditions...

Soil Moisture Map:

Calculated Soil Moisture Anomaly (mm)
AUG, 2014

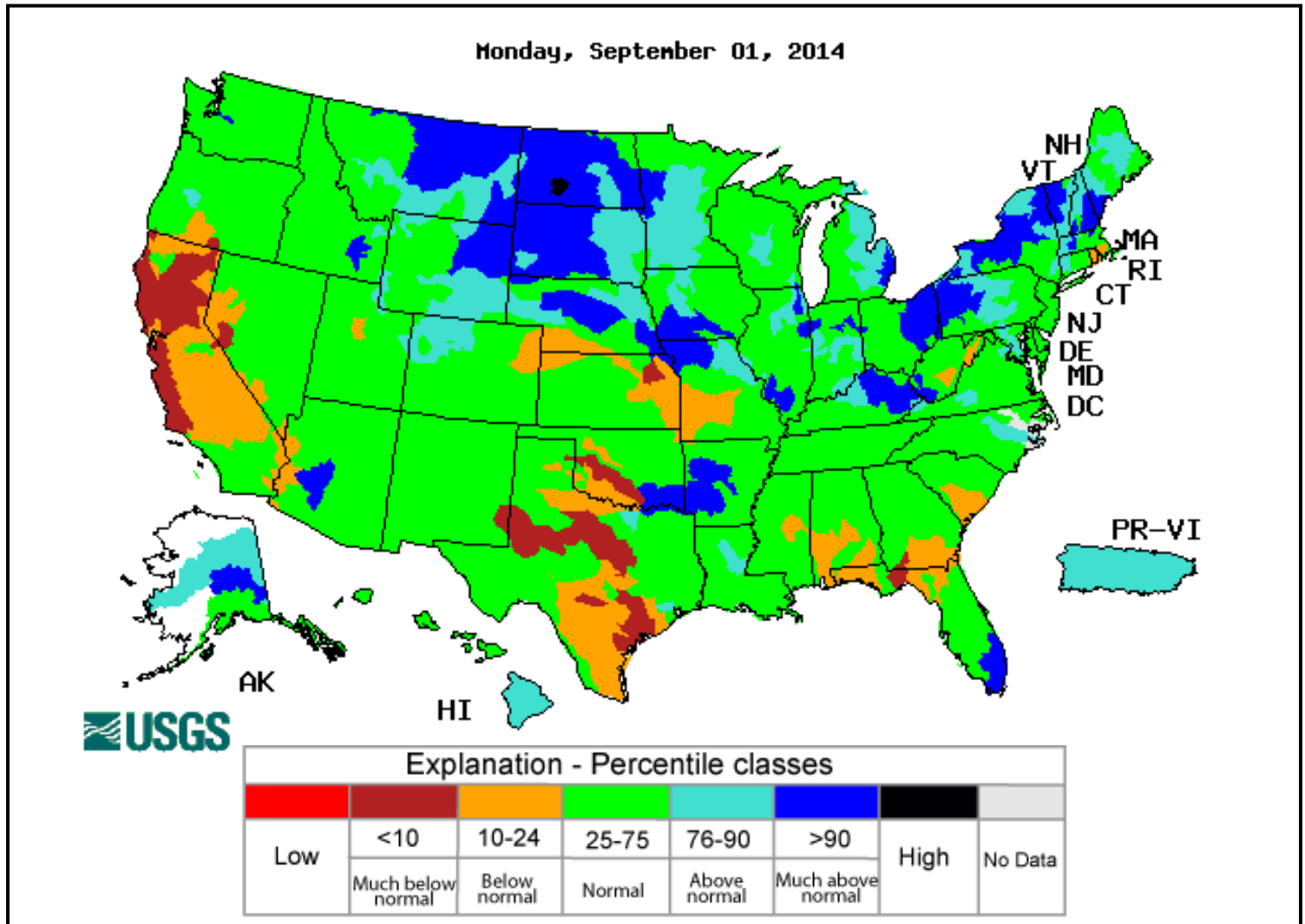


Drought Comparison:



Streamflow:

The United States Geological Survey's (USGS) August 2014 river streamflow records were compared with all historical August streamflow records. The average August streamflow was normal in the majority of the HSA with below normal streamflow in the Golden Triangle area of Mississippi and above normal in a small part of northeast Louisiana.



River Conditions:

No flooding occurred along the river systems in the HSA. For the conditions of the Mississippi River from Arkansas City to Natchez, refer to the hydrographs on the next page.

Climatic Outlook and Flood Potential:

The climatic outlook for the next three months favors normal temperatures across the entire HSA. The three month precipitation outlook shows above normal precipitation across Southwest MS, Northeast Louisiana, and Southeast, AR. Therefore, based on current soil moisture, streamflow, and the 3-month weather outlook, the flood potentials are as follows:

Pearl River System: Average.

Yazoo River System: Average.

Big Black River System: Average.

Homochitto River System: Average.

Pascagoula River System: Average.

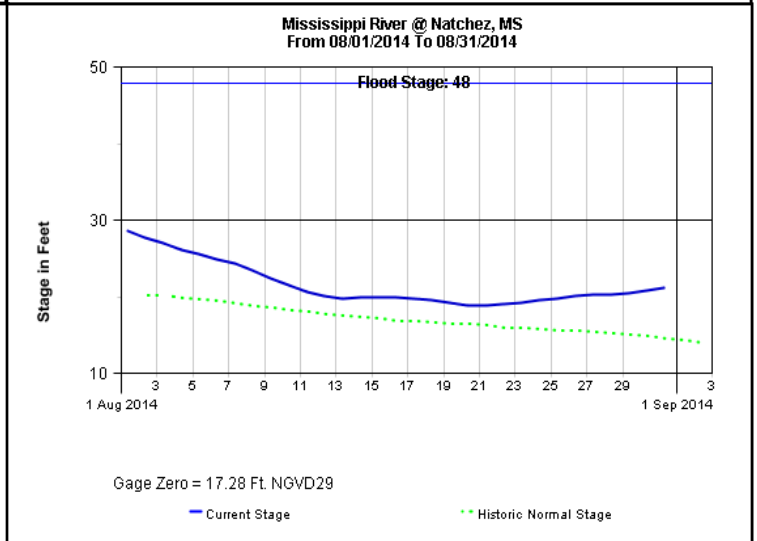
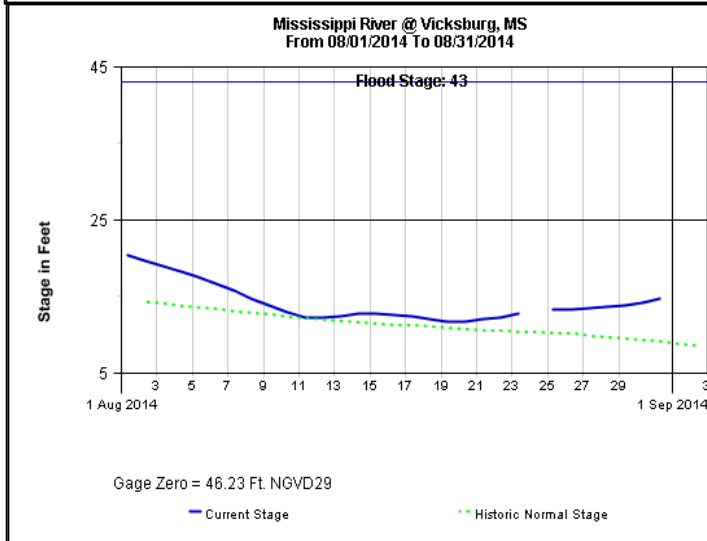
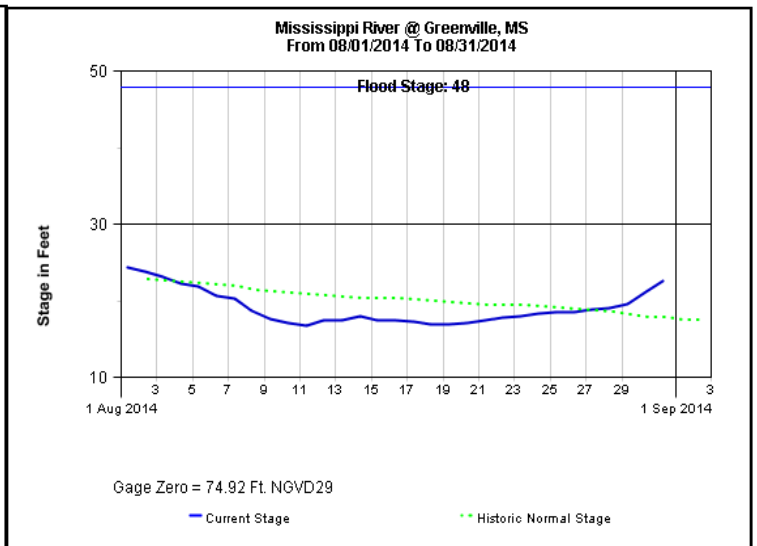
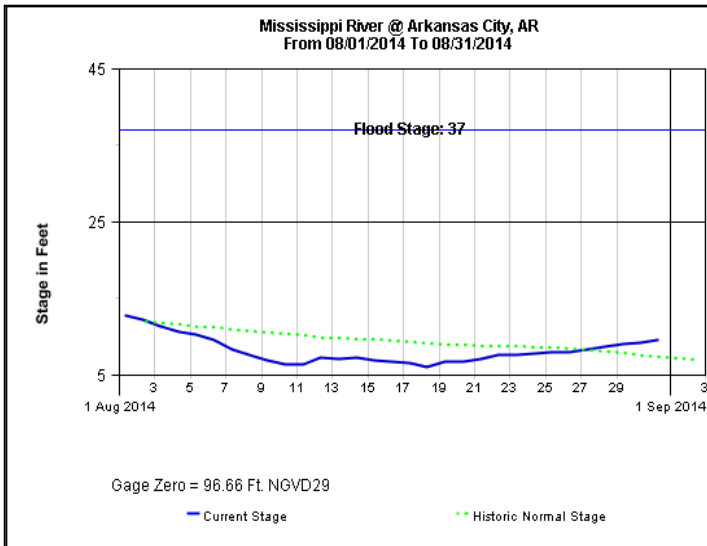
Northeast LA and Southeast AR: Average.

Tombigbee River System: Average.

Mississippi River: Average.

Mississippi River Plots August 2014

Plots Courtesy of the United States Army Corps of Engineers



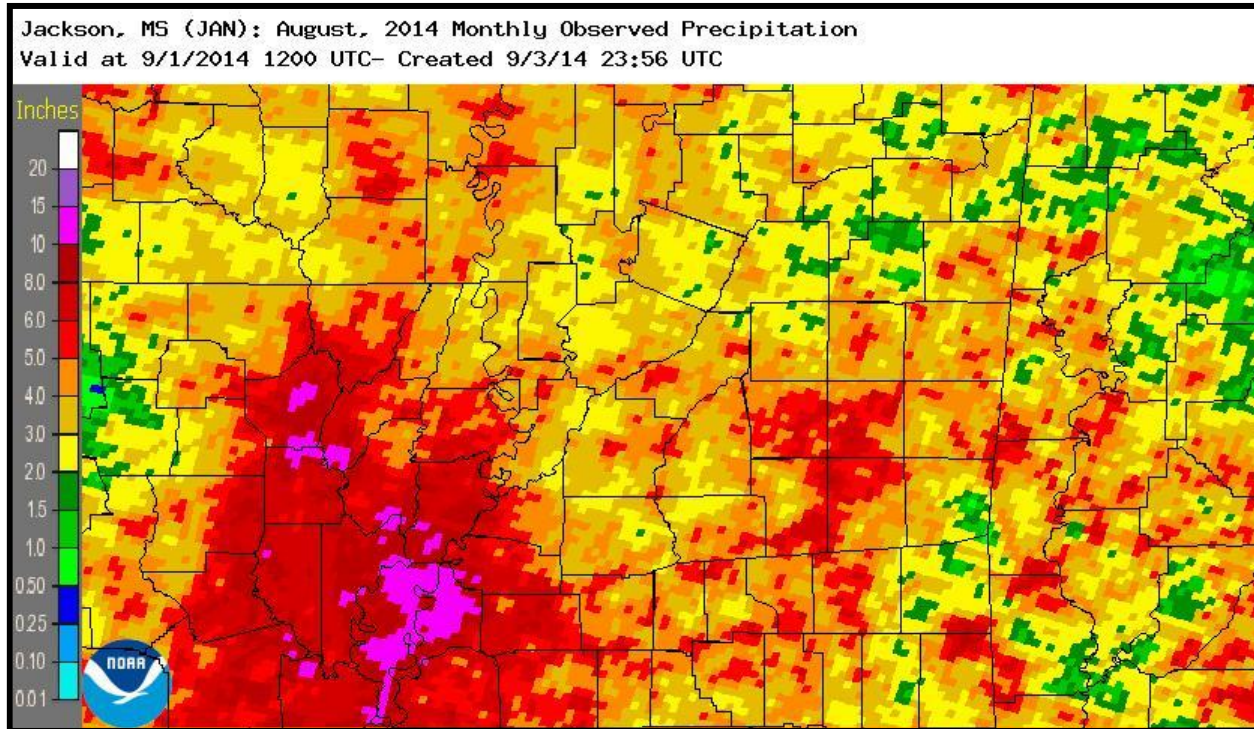
Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	12.83	8/01	5.99	8/18
Greenville	48	24.45	8/01	16.74	8/11
Vicksburg	43	20.32	8/01	11.67	8/19
Natchez	48	28.60	8/01	18.91	8/21

Rainfall for the Month of August:

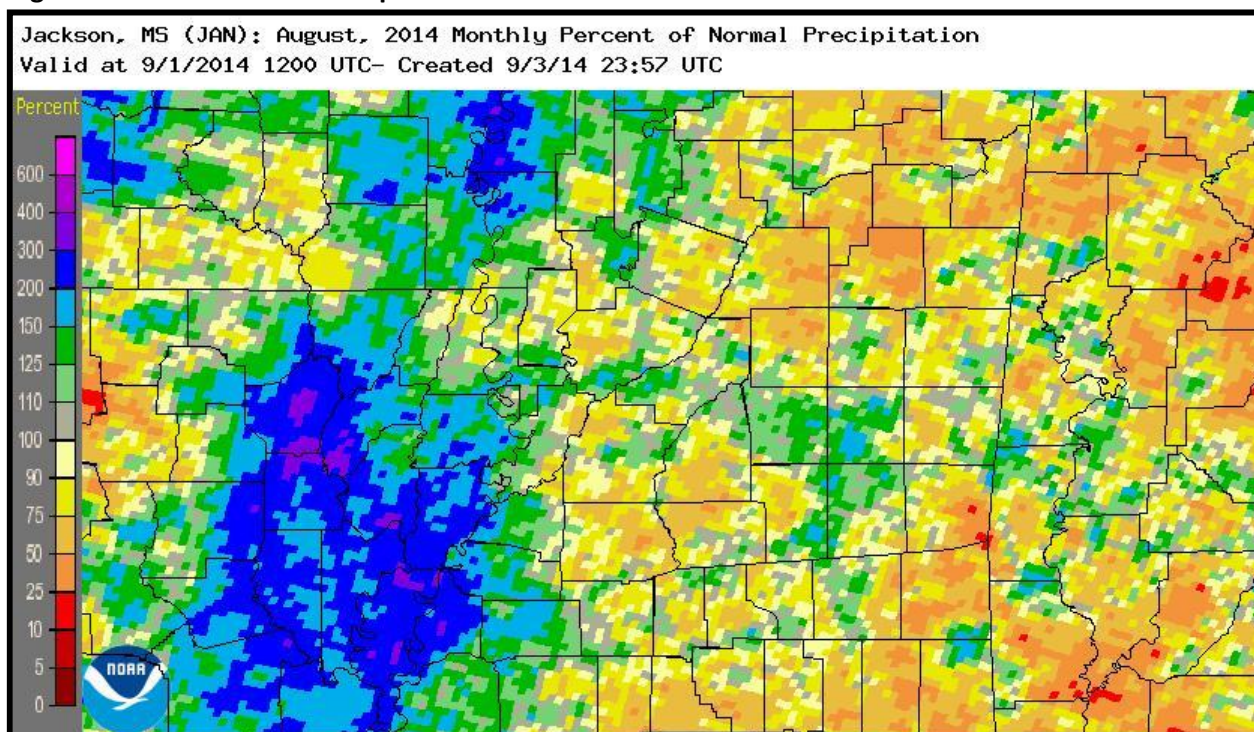
The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on July 31st until 7 am on August 31st were: 9.49 inches at Natchez, MS; 8.64 inches at Jonesville L&D, LA; 8.63 inches at St. Joseph, LA; 7.53 inches at Mize, MS; 7.23 inches at Newton, MS; 7.09 inches at Rayville, LA; 6.74 inches at Bay Springs, MS; 6.45 inches at Philadelphia, MS; 6.43 inches at Sumrall, MS; 6.37 inches at Purvis, MS; 6.25 inches Red River L&D 1, LA; 6.21 inches at Bastrop, LA; and 6.07 inches at Columbia, MS.

August Rainfall Estimates:



Note: Observer rainfall and MPE may differ due to time differences.

August Percent of Normal Precipitation:



Note: Observer rainfall and MPE may differ due to time differences.

August Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2014 Rainfall	2014 Departure from Normal
Jackson (KJAN)	3.51	-0.73	43.68	+6.40
Meridian (KMEI)	2.30	-1.69	38.36	-0.60
Greenville (KGLH)	3.90	+1.44	39.72	+5.16
Greenwood (KGWO)	3.02	+0.19	40.76	+6.69
Hattiesburg (KHBG)	1.60	-3.13	37.28	-4.88
Vicksburg (KTVR)	6.43	+2.78	44.24	+7.67

Total Flood Warning products issued: 0

Total Flood Statement products issued: 0

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 31

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31

Daily River and Lake Summary Products (RVD'S) issued: 31

Anna Weber

Assistant Hydrologist/ Meteorologist-Intern

&

Marty V. Pope

Service Hydrologist

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District